REMARKS

Claims 1-4, 6-9, 11-15, 17-24, and 26 are pending. Claims 1, 6, 12, 17, and 21

have been amended. No new matter has been added. Reexamination and

reconsideration of the present application are respectfully requested.

The Examiner rejected claims 1-4, 6-9, 11-15, 17-24, and 26 under 35 U.S.C. §

103 as being unpatentable over *Leung* (U.S. Pat. No. 6,195,705) in view of *Davies* (U.S.

Pat. No. 6,108,701) in further view of *Genty* (U.S. Pat. No. 6,614,800).

Independent claim 1, as amended, recites:

A system for using Dynamic Host Configuration Protocol (DHCP) address
assignments to determine a local destination address of a received packet in a Network
Address Translation (NAT) environment, the system comprising:
    a DHCP server to assign local Internet Protocol (IP) addresses to devices on a
local network in response to an IP address request in the form of a DHCP packet sent
by a device on the local network, the request packet containing in the options field a
symbolic name of the device;
    a remote network, wherein the local IP addresses on the local network are not
directly accessible to devices on the remote network;
    a NAT device to translate addresses from the remote network to the local
network;
    a packet device to:
        receive packets from the remote network; and
        receive packets from the devices on the local network, configured such
that when it receives packets from devices on the local network, the packet device:
            changes a source IP address of the packet from the IP address of
the device on the local network to the IP address of the packet device, and
            verifies that no other devices on the local network are already using
the source port, and if another device is using the source port, the packet device
assigns a new source port to the packet;
    an addressing device to determine the local destination address of the packets
received by the packet device, wherein the addressing device uses an association table
created from symbolic names of the devices on the local network and the local IP
addresses associated with the devices, and the addressing device determines a
symbolic name of a destination address of a device from the packet, utilizes the
association table to determine the destination address of the packet by correlating the
symbolic name of the device with the device's assigned IP address, and routes the
packet to the destination address.

Applicant has amended claim 1. As amended, claim 1 is not taught or suggested by the cited art.

Claim 1 now recites "a DHCP server to assign local Internet Protocol (IP) addresses to devices on a local network <u>in response to an IP address request in the form of a DHCP packet sent by a device on the local network, the request packet containing in the options field a symbolic name of the device.</u>" This limitation requires an IP address request in the form of a DHCP packet to be sent by a device on the local network. The options field of the DHCP packet contains a symbolic name of the device. *Leung* discloses "address translations tables ... maintained in Network Address Translation (NAT)," and "address bindings ... maintained in Dynamic Host Configuration Protocol (DHCP) servers." Col. 12, Lines 25 – 30. However, *Leung* does not mention the options field of the DHCP packet, nor does *Leung* mention using symbolic names. *Davies* discloses a DNS server to "translate the symbolic name of the server to an IP address on [a] Local Area Network." Col. 1, lines 61 – 62. However, *Davies* does not teach or suggest that the symbolic names be stored in the options field of a DHCP packet. *Genty* discloses "keeping the IP addresses hidden" to "provide[] greater network security." Col. 7, Lines 10 – 11. However, *Genty* does not teach or suggest a DHCP packet "<u>sent by a device on the local network, the request packet containing in the options field a symbolic name of the device</u>", as recited by amended claim 1. Thus, neither *Leung*, *Davies*, nor *Genty* teach or suggest this new limitation.

Claim 1 also recites a packet device to "<u>receive packets from the devices on the local network, configured such that when it receives packets from devices on the local network, the packet device: changes a source IP address of the packet from the IP address of the device on the local network to the IP address of the packet device, and</u>

verifies that no other devices on the local network are already using the source port, and if another device is using the source port, the packet device assigns a new source port to the packet." This limitation is significant because the packet device both changes the source IP address of the packet, and, if the source port of the packet is already in use, it also assigns a new source port to the packet. This functionality is not taught or suggested by any of the cited art. It ensures that the packets received from the remote network are directed not only to the proper device on the local network, but also to a proper and unique port. Neither *Davies*, *Genty*, nor *Leung* teach or suggest changing the packet's source IP address or the packet's port. Indeed, modifying source attributes of a packet would normally cause a packet to become misdirected or lost, as opposed to being routed to its proper destination. The present invention avoids losing packets by maintaining a table with an updated mapping of IP addresses to symbolic names.

Claim 1 also now recites that the addressing device "utilizes the association table to determine the destination address of the packet by correlating the symbolic name of the device with the device's assigned IP address, and routes the packet to the destination address." These changes further clarify the means by which packets arrive at the destination address. The Examiner stated that "the term 'causes,' which is used in all the claims, is broad and may encompass any device that participates in the addressing process." Applicant has removed the term "causes," and has replaced it with the more specific term "routes" in combination with the limitation that the packet's destination address is determined "by correlating the symbolic name of the device with the device's assigned IP address." Thus, the limitation no longer reads on any device that participates in the addressing process, as the Examiner indicated was the case with the term "causes," but only those devices that perform the recited correlation function

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and "route" packets, as understood by one skilled in the art of computer networks. This excludes the DNS server of *Davies,* which performs the limited function of responding to name/address translation requests and does not perform any routing function. See Col. 1, Line 45 – 47.

As amended, claim 1 is not taught or suggested by the cited art. Thus, Applicant respectfully submits that claim 1, as amended, is allowable.

As amended, independent claims 6, 12, 17, and 21 recite limitations similar to claim 1, as amended. Accordingly, applicant respectfully submits that independent claims 6, 12, 17, and 21 distinguish over the combination of *Leung, Davies*, and *Genty* for reasons similar to those discussed above in regard to claim 1.
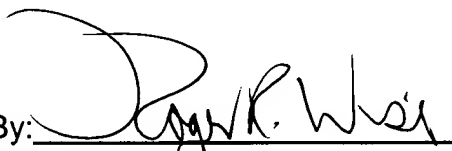
Dependent claims 2-4 depend, directly or indirectly, upon independent claim 1. Claims 7-9 and 11 depend, directly or indirectly, upon independent claim 6. Claims 13-15 depend, directly or indirectly, upon independent claim 12. Claims 18-20 depend, directly or indirectly, upon independent claim 17. And claims 22-24 and 26 depend, directly or indirectly, upon independent claim 21. Accordingly, applicant respectfully submits that dependent claims 2-4, 7-9, 11, 13-15, 18-20, 22-24, and 26 distinguish over the combination of *Leung, Davies*, and *Genty et al.* for reasons similar to those discussed above in regard to claim 1.

Applicant believes that the foregoing remarks place the application in condition for allowance, and a favorable action is respectfully requested. If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call either of the undersigned attorneys at the Los Angeles telephone number (213) 488-7100 to discuss the steps necessary for placing the application in condition for allowance should the Examiner believe that such a telephone conference would advance prosecution of the application.
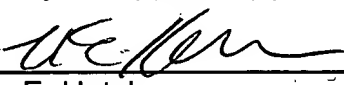
Respectfully submitted,

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